

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 15280-3421PC	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 98/ 25742	International filing date (day/month/year) 04/12/1998	(Earliest) Priority Date (day/month/year) 05/12/1997
Applicant THE GOVERNMENT OF THE UNITED STATES OF . . .et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

contained in the international application in written form.

filed together with the international application in computer readable form.

furnished subsequently to this Authority in written form.

furnished subsequently to this Authority in computer readable form.

the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. **Certain claims were found unsearchable** (See Box I).

3. **Unity of Invention is lacking** (see Box II).

4. With regard to the **title**,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No. _____

as suggested by the applicant.

because the applicant failed to suggest a figure.

because this figure better characterizes the invention.

None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 98/25742

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
Remark: Although claims 9-14, 40-43, 50 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No

107/US 98/25742

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C12N15/30 C07K14/445 A61K39/015 C07K16/20 C12N15/62
C12N1/19

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 C12N C07K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 89 10936 A (US) 16 November 1989 see figure 1 ---	1, 4
X	WO 95 08631 A (US HEALTH) 30 March 1995 see page 33 - page 34; claim 15 ---	15
P, X	WO 98 14472 A (GOZAR MARY MARGARET ;US HEALTH (US); KASLOW DAVID C (US)) 9 April 1998 see page 52; claim 1 ---	15
A	WO 94 01552 A (US ARMY) 20 January 1994 ---	
A	WO 94 28930 A (VIROGENETICS CORP) 22 December 1994 see claim 3; figure 9 ---	1, 4
		-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

13 April 1999

23/04/1999

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Esben, J

INTERNATIONAL SEARCH REPORT

International Application No

US 98/25742

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>PREMAWANSA S ET AL: "Target antigens of transmission blocking immunity of <i>Plasmodium vivax</i> malaria. Characterization and polymorphism in natural parasite isolates."</p> <p>JOURNAL OF IMMUNOLOGY, (1990 JUN 1) 144 (11) 4376-83. JOURNAL CODE: IFB. ISSN: 0022-1767., XP002099364</p> <p>United States</p> <p>---</p>	
A	<p>SNEWIN VA ET AL: "Transmission blocking immunity in <i>Plasmodium vivax</i> malaria: antibodies raised against a peptide block parasite development in the mosquito vector"</p> <p>THE JOURNAL OF EXPERIMENTAL MEDICINE, vol. 181, 1995, pages 357-362, XP002099365</p> <p>---</p>	
A	<p>AGABIAN N ET AL: "Molecular strategies of parasitic invasion"</p> <p>1987, ALAN R. LISS, INC. , NEW YORK</p> <p>XP002099366</p> <p>see MENDIS ET AL: 'Immune modulation of parasite transmission in <i>Plasmodium vivax</i> malaria. Anti-gamete antibodies can both block and enhance transmission</p> <p>see page 417 - page 426</p> <p>-----</p>	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 98/25742

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
WO 8910936	A 16-11-1989	AT 139537	T	15-07-1996
		AU 619312	B	23-01-1992
		AU 3763789	A	29-11-1989
		DE 68926712	D	25-07-1996
		DE 68926712	T	17-04-1997
		EP 0418310	A	27-03-1991
		IL 90134	A	10-06-1997
		JP 2812759	B	22-10-1998
		JP 3503122	T	18-07-1991
		US 5853739	A	29-12-1998
		US 5217898	A	08-06-1993
WO 9508631	A 30-03-1995	US 5527700	A	18-06-1996
		AU 7876994	A	10-04-1995
		US 5753238	A	19-05-1998
WO 9814472	A 09-04-1998	AU 4661697	A	24-04-1998
WO 9401552	A 20-01-1994	AU 675445	B	06-02-1997
		AU 4670493	A	31-01-1994
		CA 2138646	A	20-01-1994
		EP 0651798	A	10-05-1995
		JP 8502402	T	19-03-1996
		US 5527700	A	18-06-1996
		US 5753238	A	19-05-1998
WO 9428930	A 22-12-1994	US 5766597	A	16-06-1998
		AU 701825	B	04-02-1999
		AU 7060294	A	03-01-1995
		CA 2168124	A	22-12-1994
		EP 0717636	A	26-06-1998